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 HENDEL
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TM02/0928 BLAKELY SOKOLOFF TAYLOR AND ZAFMAN 12400 WILSHIRE BOULEVARD 7TH FLOOR LOS ANGELES CA 90025

ART UNIT PAPER NUMBER

EXAMINER

2152

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09/28/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Application No. Applicant(s) 08/813,647 Hendel et al Office Action Summary **Art Unit** Examiner Thong Vu 2152 -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**Period for Reply** A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION. - Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication. - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely. - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication. - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). - Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b). Status 1) Responsive to communication(s) filed on Apr 9, 2001 2b) X This action is non-final. 2a) This action is **FINAL**. 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11; 453 O.G. 213. **Disposition of Claims** 4) X Claim(s) 1-41 is/are pending in the application. 4a) Of the above, claim(s) ______ is/are withdrawn from consideration. 5) Claim(s) _____ is/are allowed. 6) X Claim(s) 1-41 is/are rejected. Claim(s) ______ is/are objected to. 8) Claims ______ are subject to restriction and/or election requirement. **Application Papers** 9) The specification is objected to by the Examiner. 10) The drawing(s) filed on ______ is/are objected to by the Examiner. 11) \square The proposed drawing correction filed on is: a) \square approved b) \square disapproved. 12) \square The oath or declaration is objected to by the Examiner. Priority under 35 U.S.C. § 119 13) Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d). a) All b) Some* c) None of: 1. Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No. ______. 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). *See the attached detailed Office action for a list of the certified copies not received. 14) Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e). Attachment(s) 18) Interview Summary (PTO-413) Paper No(s). 15) Notice of References Cited (PTO-892) 16) Notice of Draftsperson's Patent Drawing Review (PTO-948) 19) Notice of Informal Patent Application (PTO-152) 17) Information Disclosure Statement(s) (PTO-1449) Paper No(s). 20) Other:

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1. This office action is in response to the Request for Reconsideration filed 4/09/2001. Claims 1-41 are pending. The rejections cited are as stated below.

- 2. The applicant arguments filed 4/09/2001 have been fully considered but they are most to new ground of rejection.
- 3. Claims 1-41 are rejected under 35 U.S.C. § 103 as being unpatentable over Hardwick et al [Hardwick 5,550,816] in view of Yu et al [6,064,671]
- 4. As per claim 1, Hardwick discloses the invention substantially as claimed, a network device, comprising a first port that connects to a first interface; a second port that connects to a second interface [col 6 line 38-col 11 lines 63]; Hardwick also discloses very high speed link [col 3 lines 15-23] and an associated identifier that identifies the connection between said first and second ports [col 35 lines 49-62]

However Barrett did not detail a trunking pseudo driver, coupled to the first port and the second port, that allows the first interface and second interface to emulate a single high-speed device by assigning to said first and second interfaces an associated identifier that identifies the connection between said first and second ports. A skilled artisan would looked to implement the virtual switch by application program and found the Yu teaching.

Yu discloses a virtual network mechanism to access well known port application program on network [Yu, abstract] using a pseudo device driver which is to be emulated by the host system [Yu col 8 lines 35-50]. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the application program such as pseudo device driver as taught by Baker into the Hardwick's system in order to provide the virtual switch an efficiency tool to emulate a single high speed assigned to the virtual link between the

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source and destination device on the network

- 5. As per claim 33, Hardwick-Yu disclose the trunking pseudo driver comprises a load balancing unit that selects one of the first and second interfaces to transmit a packet of data as an inherent feature of pseudo driver [Yu col 8 lines 35-50].
- 6. As per claim 34, Hardwick-Yu disclose the trunking pseudo driver comprises an identification unit that assigns a first identifier to the first interface and the second interface that identifies a path between the first and the second device as an inherent feature of pseudo driver [Yu col 8 lines 35-50].
- 7. As per claim 35, Hardwick-Yu disclose the first and second interface are homogeneous as a design choice of LAN.
- 8. As per claim 36 Hardwick-Yu disclose the network device is an end-node or destination node [Hardwick col 25 lines 25-54].
- 9. As per claim 37, Hardwick-Yu disclose the network device is a switch [Hardwick col 6 line 38-col 11 lines 63]
- 10. As per claims 1,14,19,24,38-41 contain the similar limitations set forth in method claim 32. Therefore, claims 1,14,19,24,38-41 are rejected for the same rationale set forth claim 32.
- 11. As per claims 2-4, Hardwick-Yu disclose the step of select one of the plurality of interfaces to send the packet as inherent feature of virtual switch [Hardwick col 7 lines 1-25]
- 12. As per claims 5,13 Hardwick-Yu disclose transmitting a first packet of data on only one of the plurality of interfaces as the inherent feature of select the first interface [Hardwick col 7 lines 1-25]
- 13. As per claim 6, Hardwick-Yu disclose assigning a first identifier to a first interface and a

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second interface at the first device; and identifying a path between the first device to the second device with the first identifier [Hardwick col 6 line 60-col 7 line 15]

- 14. As per claims 7-9 Hardwick-Yu disclose assigning the first identifier to the first interface and the second interface comprises assigning a media access control (MAC) address [Hardwick col 48 line 46]; Internet Protocol (IP) address [Yu col 14 line 62]; a group identifier as a design choice of user groups [Hardwick col 5 lines 47-65, col 9 lines 5-10]
- 15. As per claim 10, Hardwick-Yu disclose the first device comprises a load balancing unit that allocates data to be transmitted on the first interface and the second interface such that data traffic on the first interface and the second interface is approximately the same as an inherent feature of selecting the physical interface or path to send a message [Hardwick col 7 lines 1-25]
- 16. As per claim 11, Hardwick-Yu disclose allocating data to be transmitted on the first interface and the second interface, transmitting the data on the first interface when the output queue of the second interface is fuller than the output queue of the first interface and when previous data sent on the first interface is no longer on the first interface; and transmitting the data on the second interface when the output queue of the first interface is fuller than the output queue of the second interface and when previous data sent on the second interface is not longer on the second interface as the inherent feature of selecting the physical interface or path to send a message [Hardwick col 7 lines 1-25]
- 17. As per claim 12, Hardwick-Yu disclose selecting one of the first interface and the second interface to send a packet of data based on address information in the packet of data [Hardwick col 6 line 38-col 11 lines 63]
- 18. As per claims 15-18 contain the similar limitations set forth in method claims 2-5

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respectively. Therefore, claims 15-18 are rejected for the same rationale set forth claim 2-5.

As per claims 25-31 contain the similar limitations set forth in method claims 7-10,22,23 19. Therefore, claims 25-31 are rejected for the same rationale set forth claims 7-10,22,23

Any inquiry concerning this communication or earlier communications from the 20. examiner should be directed to examiner Thong Vu, whose telephone number is (703)-305-4643. The examiner can normally be reached on Monday-Thursday from 8:00AM- 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Rinehart, can be reached at (703) 305-4815.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-3900.

Any response to this action should be mailed to:

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Hand-delivered responses should be brought to Crystal Park 11,2121 Crystal Drive,

MARK H. RINEHART

SUPERVISORY PATENT EXAMINED TECHNOLOGY CENTER 210%

Arlington. VA., Sixth Floor (Receptionist).

Thong Vu

Sept 25, 2001